

WHAT IS CLAIMED IS:

- 1 1. A microphone including an arrangement facilitating the reception and
2 identification of at least one speaker utilizing the microphone, said arrangement
3 comprising:
4 a device for producing an audio signal from said microphone;
5 at least one sensor for determining the speaker using said microphone;
6 an encoder for encoding the audio signal with a speaker with a speaker indicator
7 number as determined by said at least one sensor;
8 and a decoder for extracting the audio signal and decoding the speaker indicator
9 number so as to enable the deriving of a speaker recognition model
10 determination of the speaker.
- 1 2. A microphone as claimed in Claim 1, wherein said at least one sensor, said
2 encoder and audio signal producing device are installed in said microphone.
- 1 3. A microphone as claimed in Claim 1, wherein said at least one sensor
2 determines which of at least two speakers is using the microphone.
- 1 4. A microphone as claimed in Claim 1, wherein said audio signal device produces
2 one or more output audio streams in dependence upon the identity of the speaker using
3 the microphone.
- 1 5. A microphone as claimed in Claim 4, wherein said microphone comprises at
2 least one switch actuatable by a speaker for producing said one or more output audio
3 streams.
- 1 6. A microphone as claimed in Claim 5, wherein said switch comprises a
2 manually-operated button on said microphone.

- 1 7. A microphone as claimed in Claim 5, wherein said switch comprises a position
2 switch for detecting an angular orientation of said microphone.
- 1 8. A microphone as claimed in Claim 7, wherein said position switch comprises a
2 mercury balance switch.
- 1 9. A microphone as claimed in Claim 4, wherein a plurality of microphone pick-up
2 elements are located in said microphone to enable energy and/or volume levels of said
3 output audio streams to facilitate recognition of the speaker identity.
- 1 10. A microphone as claimed in Claim 1, wherein sound or electrical sensors
2 arranged in a handle of said microphone detect when a holder of the microphone is
3 speaking in contrast with a non-holder of the microphone.
- 1 11. A microphone as claimed in Claim 1, wherein said encoder encodes said audio
2 signals through selectively a high- or low-frequency bias.
- 1 12. A microphone as claimed in Claim 11, wherein said decoder recognizes and
2 eliminates said bias through selectively a DC high- pass or low-pass filter.
- 1 13. A microphone as claimed in Claim 1, wherein said encoder encodes said output
2 audio signal streams in a plurality of channels by selectively utilizing multiple output
3 wires, adding a DC-bias, modulation on different carrier frequencies, or stereo
4 transmission..
- 1 14. A microphone as claimed in Claim 1, wherein said encoder encodes said audio
2 signals by a pulsed signal whereby upon said microphone detecting another speaker, a
3 beep is transmitted for detection by the decoder.
- 1 15. A microphone as claimed in Claim 13, wherein an auxiliary clip-on microphone
2 device is located on at least one speaker, and the output of the audio signals from the

3 microphone is encoded with one said channel upon the energy of the clip-on
4 microphone device exceeding a predetermined audio threshold.

1 16. A microphone as claimed in Claim 1, wherein a speech recognizer detects the
2 encoding of the audio signals in said encoder and utilizes a different speech
3 recognitions model based on the encoding to identify a speaker.

1 17. A microphone as claimed in Claim 1, wherein said microphone includes a
2 camera for ascertaining visually any lip motion so as to detect the identify of the
3 speaker.

1 18. A method of utilizing a microphone including an arrangement facilitating the
2 reception and identification of at least one speaker utilizing the microphone, said
3 method comprising:
4 providing a device for producing an audio signal from said microphone;
5 providing at least one sensor for determining the speaker using said microphone;
6 providing an encoder for encoding the audio signal with a speaker with a
7 speaker indicator number as determined by said at least one sensor;
8 and providing a decoder for extracting the audio signal and decoding the speaker
9 indicator number so as to enable the deriving of a speaker recognition model
10 determination of the speaker.

1 19. A method as claimed in Claim 18, wherein said at least one sensor, said encoder
2 said encoder and audio signal producing device are installed in said microphone.

1 20. A method as claimed in Claim 18, wherein said at least one sensor determines
2 which of at least two speakers is using the microphone.

1 21. A method as claimed in Claim 18, wherein said audio signal device produces
2 one or more output audio streams in dependence upon the identity of the speaker using
3 the microphone.

1 22. A method as claimed in Claim 21, wherein said microphone comprises at least
2 one switch actuatable by a speaker for producing said one or more output audio streams.

1 23. A method as claimed in Claim 22, wherein said switch comprises a manually-
2 operated button on said microphone..

1 24. A method as claimed in Claim 22, wherein said switch comprises a position
2 switch for detecting an angular orientation of said microphone.

1 25. A method as claimed in Claim 24, wherein said position switch comprises a
2 mercury balance switch.

1 26. A method as claimed in Claim 21, wherein a plurality of microphone pick-up
2 elements are located in said microphone to enable energy and/or volume levels of said
3 output audio streams to facilitate recognition of the speaker identity.

1 27. A method as claimed in Claim 18, wherein sound or electrical sensors arranged
2 in a handle of said microphone detect when a holder of the microphone is speaking in
3 contrast with a non-holder of the microphone.

1 28. A method as claimed in Claim 18, wherein said encoder encodes said audio
2 signals through selectively a high- or low-frequency bias.

1 29. A method as claimed in Claim 28, wherein said decoder recognizes and
2 eliminates said bias through selectively a DC high- pass or low-pass filter.

1 30. A method as claimed in Claim 18, wherein said encoder encodes said output
2 audio signal streams in a plurality of channels by selectively utilizing multiple output
3 wires, adding a DC-bias, modulation on different carrier frequencies, or stereo
4 transmission..

1 31. A method as claimed in Claim 18, wherein said encoder encodes said audio
2 signals by a pulsed signal whereby upon said microphone detecting another speaker, a
3 beep is transmitted for detection by the decoder.

1 32. A method as claimed in Claim 30, wherein an auxiliary clip-on microphone
2 device is located on at least one speaker, and the output of the audio signals from the
3 microphone is encoded with one said channel upon the energy of the clip-on
4 microphone device exceeding a predetermined audio threshold.

1 33. A method as claimed in Claim 18, wherein a speech recognizer detects the
2 encoding of the audio signals in said encoder and utilizes a different speech recognition
3 model based on the encoding to identify a speaker.

1 34. A method as claimed in Claim 18, wherein said microphone includes a camera
2 for ascertaining visually any lip motion so as to detect the identify of the speaker.